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Dated: August 3, 2005

Signature: *Denise Kacinski*  
(Denise Kacinski)

Docket No.: 62052(51588)  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Mark C. Poznansky et al.

Application No.: 10/537,610

Confirmation No.: Unknown

Filed: June 3, 2005

Art Unit: N/A

For: METHODS AND COMPOSITIONS  
RELATING TO GRADIENT EXPOSED  
CELLS

Examiner: Not Yet Assigned

**INFORMATION DISCLOSURE STATEMENT (IDS)**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed within three months of the U.S. filing date (37 CFR 1.97(b)(1)).

A copy of each reference on the PTO/SB/08 is attached.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be

an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

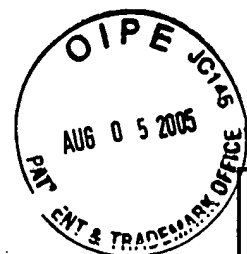
It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1105, under Order No. 62052(51588). A duplicate copy of this paper is enclosed.

Dated: August 3, 2005

Respectfully submitted,

By   
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PTO/SB/08a/b (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

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Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/537,610
				Filing Date	June 3, 2005
				First Named Inventor	Mark C. Poznansky
				Art Unit	N/A
				Examiner Name	Not Yet Assigned
Sheet	1	of	2	Attorney Docket Number	62052(51588)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	US-20020131953	09/19/2002	Takashima et al.	
	AB	US-6,448,054	09/10/2002	Poznansky et al.	
	AC	US-6,399,569	06/04/2002	Cohen et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	MM-DD-YYYY			

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NON PATENT LITERATURE DOCUMENTS						
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author ( in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T <sup>2</sup>
	CA	SUZUKI et al. "Diverse Transcriptional Response of CD4+ T Cells to Stromal Cell-Derived Factor (SDF)-1: Cell Survival Promotion and Priming Effects of SDF-1 on CD4+ T Cells." The Journal of Immunology (2001), 167: 3064-3073				
	CB	STAUDT et al. "Genomic Views of the Immune System." Annu. Rev. Immunol. (2000), 18:829-859				
	CC	LASTER et al. "Target-induced changes in macrophage migration may explain differences in lytic sensitivity among simian virus 40-transformed fibroblasts." J. Immunol. (1988) July 1: 141(1):221-7				
	CD	GURDON et al. "Morphogen gradient interpretation." Nature (2001) 413(6858):797-803				
	CE	DYSON et al. "The interpretation of position in a morphogen gradient as revealed by occupancy of activin receptors." Cell (1998) 93(4): 557-68				
	CF	MCDOWELL et al. "Formation of a functional morphogen gradient by a passive process in tissue from the early Xenopus embryo." Int. J. Dev. Biol. (2001) 45(1 Spec No): 199-207				
	CG	CADIGAN "Regulating morphogen gradients in the Drosophila wing." Semin Cell Dev Biol (2002) 13(2): 83-90				
	CH	SHIMIZU et al. "A quantitative analysis of signal transduction from activin receptor to nucleus and its relevance to morphogen gradient interpretation." Proc Natl Acad Sci USA (1999) 96(12): 6791-6				
	CI	MCDOWELL et al. "Activin has direct long-range signalling activity and can form a concentration gradient by diffusion." Curr Biol (1997) 7(9): 671-81				
	CJ	RYAN et al. "The Xenopus eomesodermin promoter and its concentration-dependent response to activin." Mech Dev (2000) 94(1-2): 133-46				
	CK	TEMARU et al. "High glucose enhances the gene expression of interleukin-8 in human endothelial cells, but not in smooth muscle cells: possible role of interleukin-8 in diabetic macroangiopathy." Diabetologia (1997) 40(5): 610-3				
Examiner Signature				Date Considered		

Substitute for form 1449A/B/PTO				<b>Complete if Known</b>	
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				Filing Date	June 3, 2005
				First Named Inventor	Mark C. Poznansky
				Art Unit	N/A
				Examiner Name	Not Yet Assigned
Sheet	2	of	2	Attorney Docket Number	62052(51588)

CL	TONETTI et al. "Neutrophil migration into the gingival sulcus is associated with transepithelial gradients of interleukin-8 and ICAM-1." J. Periodontol (1998) 69(10): 1139-47	
CM	BRAISTED et al. "graded and lamina-specific distributions of ligands of EphB receptor tyrosine kinases in the developing retinotectal system." Dev Biol (1997) 191 (1): 14-28	
CN	CHRISTOPHERSON et al. "Transgenic overexpression of the CC chemokine CCL21 disrupts T-cell migration." Blood (2001) 98(13): 3562-8	
CO	TURNER et al. "Hypoxia inhibits macrophage migration." Eur J Immunol. (1999) 29(7): 2280-7	
CP	JANOWSKA-WIECZOREK et al. "Differential MMP and TIMP production by human marrow and peripheral blood CD34(+) cells in response to chemokines." Exp Haematol (2000) 28(11): 1274-84	
CQ	NELLEN et al. "Direct and long-range action of a DPP morphogen gradient." Cell (1996) 85(3): 357-68	
CR	CAMPBELL et al. "Transducing the Dpp morphogen gradient in the wing of Drosophila: regulation of Dpp targets by brinker." Cell (1999) 96(4): 553-62	
CS	GRIMM et al. "Control of the gene optomotor-blind in Drosophila wing development by decapentaplegic and wingless." Science (1996) 271(5255): 1601-4	
CT	JAZWINSKA et al. "The Drosophila gene brinker reveals a novel mechanism of Dpp target gene regulation." Cell (1999) 96(4): 563-73	
CU	STAEHLING-HAMPTON et al. "Dpp induces mesodermal gene expression in Drosophila." Nature (1994) 372(6508): 783-6	
CV	KIECKER et al. "A morphogen gradient of Wnt/beta-catenin signalling regulates anteroposterior neural patterning in Xenopus." Development (2001) 128(21): 4189-201	
CW	PAPAGEORGIOU "A physical force may expose Hox genes to express in a morphogenetic density gradient." Bull Math Biol (2001) 63(1): 185-200	
CX	TOMOYASU et al. "The decapentaplegic morphogen gradient regulates the notal wingless expression through induction of pannier and u-shaped in Drosophila." Mech Dev (2000) 96(1): 37-49	
CY	GURDON et al. "Single cells can sense their position in a morphogen gradient." Development (1999) 126(23):5309-17	
CZ	GURDON et al. "An experimental system for analyzing response to a morphogen gradient." Proc. Natl. Acad. Sci. USA (1996) 93: 9334-9338	
CA1	BAO et al. "Temporal Gradient in Shear but not Steady Shear Stress Induces PDGF-A and MCP-1 Expression in Endothelial Cells." Arterioscler Thromb Vasc Biol. (1999) 19: 996-1003	
CB1	RUTHISHAUSER et al. "T-Cells differentially express genes encoding molecules involved in chemokine signal transduction when migrating towards or away from gradients of SDF-1(CXCL12) Abstract, January 7, 2003	

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Application No. (if known): 10/537,610

Attorney Docket No.: 62052(51588)

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